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What Laymen Know About School Administration

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"Laymen," as the term is used in the title, includes all people who are not school administrators. Those laymen included in this study are classified into three major groups; namely, classroom teachers, students in teachers' colleges, and adult citizens not connected with schools or with teaching. The aim of the study is to see what the lay public and classroom teachers, or teachers in training, know about the significant information in the field of public school administration which good citizenship and classroom efficiency would seem to require. The values of the study are to show what some of the content of school publicity should be, what some of the content of teachers' meetings should be, what some of the content of teacher-training curricula should be, and probably what some of the content of high-school civics courses should be. The basic assumption underlying the study is that good citizenship and classroom efficiency require some knowledge of a few of the fundamentals of public school administration, and that before we can begin to implant the necessary information we must learn what knowledge the groups concerned already possess.

Grossly stated, the procedure of making the study was that of preparing an objective test on the essentials of public school administration and administering the test to several hundred teachers, students, and other laymen. The more detailed steps of the procedure are shown succinctly in the following outline.

I. Preparing the test

A. A class of nineteen graduate students in public school administration and its instructor, the writer, analyzed some of the best literature in the field of public school administration and listed the items of greater significance. A majority vote of the group determined which items to include in the test.

B. The books analyzed were:

1. Cubberley, Elwood P. *Public School Administration*. Boston: Houghton Mifflin Company. 1929. 479 pp.

2. Hanna, Paul Mitchell. *A Problem Book for Prospective Superintendents*. Contributions to the Graduate School, Indiana State Teachers College, No. 148. 1933. 119 pp.

3. Reeder, Ward G. *The Fundamentals of Public School Administration*. New

York: The Macmillan Company. 1930. 579 pp.

4. Weber, Oscar F. *Problems in Public School Administration*. New York: The Century Company. 1930. 726 pp.

C. Certain types of literature were purposely avoided. They were:

1. Magazine articles or monographs dealing with small aspects of the whole field of school administration.

2. Books limited to elementary- or to high-school administration.

3. Books dealing with only the financial side of administration.

4. Books featuring administration of certain types of schools, as rural school administration.

D. After a gross list of items was prepared in the manner described, a second graduate class in public school administration, consisting of four students and the same instructor, refined the list.

E. The following criteria governed the selection of the items to be included in the test.

1. An item must relate to school administration and not to methods of teaching or subject-matter content.

2. An item must be regarded by the group selecting it as essential for good citizenship, good citizenship being interpreted broadly.

3. It must also be regarded as essential for a good classroom teacher to know as a part of his professional background.

4. It must be such that one has a right to expect a good citizen or a good teacher to know it.

5. An item relating to school law must be confined to the laws of a single state, Indiana in this instance.

6. The list must be kept relatively short so as to obtain the cooperation of the groups who are to take the test; therefore, an item must be quite significant. (At the very end of the process of selecting items, a few items were omitted in order to finish with a round number.)

7. An item must be suitable for both rural and urban inhabitants.

F. Forty items were selected by the process just described. These were then made into test points of the true-false or multiple-choice types, depending on

their nature. Twenty-five of the forty were made into true-false statements and fifteen into multiple-choice problems. These types were used because of their ease of taking and objectivity of scoring. All multiple-choice items had five alternatives. The best theory of test construction was followed in framing and arranging the forty items.

G. Six different forms of the test were prepared. The forms were much alike except for the cover pages that called for varying bits of preliminary information from each person taking the test. The six forms were for the six types of people who took the test: rural teachers, urban teachers, rural students in teachers' colleges, city students in same, rural adults not connected with schools, city adults of the same type. There were no differences in the items of the tests except for some slight variations in the last six items which were made in order to adapt the six to rural and urban groups. Even in the six the subjects under consideration were the same in both rural and urban forms, but since there are different types of school organization for rural and urban districts of Indiana, variations in the alternatives of six multiple-choice items had to be made in order to fit the alternatives to the different kinds of organization.

II. Administering the tests

A. Some effort was made to get a broad geographical distribution of people to take the test. Later tables in this report will show how successful this effort was.

B. Rural teachers were reached in two county institutes and in five other school systems located in four counties. City teachers were reached in thirty-two schools located in five cities of three counties. In general, only southwestern Indiana teachers were reached, but the similarity of scores made by teachers from different systems suggests that a wider sampling would not have affected the result. All principals of high schools and those of elementary schools with eight or more teachers were excluded.

C. All students tested were in Indiana State Teachers College except fifty-six rural and fifty-one urban students enrolled at

Ball State Teachers College. The difference between a rural student and an urban student is whether a student graduated from a township or from a city or town high school. Only graduates of Indiana high schools were given the test.

D. The rural adult laymen not connected with school work were reached in parent-teacher associations, father-and-son banquets, farmers' federations, and the like in six counties mostly of western Indiana. All city adult laymen were reached in parent-teacher meetings in nine schools of two cities in Vigo County. A wide range of occupations was represented by these laymen, but no occupational group except that of housewives is large enough to merit separate consideration.

E. People taking the test were instructed to take their time and not to guess on any item. It is doubtful, however, whether the gambling spirit was inhibited by all participants who were uncertain as to the answer of a test item. The fact that seven of the first nine and thirteen of the first twenty items of the test in the order of frequency of times missed by the laymen were multiple-choice items (see list preceding Table VII) is evidence that considerable correct guessing was done on the true-false items.

F. All tests were administered in the winter of 1934-35.

III. Treating results

A. Many papers had to be discarded, some because the preliminary data were not given, but mostly because the test was not completed. The teachers and students responded to the entire test, but the other laymen in large numbers stopped short of the end. The problem which developed as to which incomplete papers to include and which to exclude was settled by excluding all papers that showed no attempts at the six problems on the last page of the test. Only those papers which were finished were used in the calculations of the tables of this report.

B. If a teacher taught in both elementary and high schools or was preparing to teach in both, he was classified in this report as of the high school. Teachers in junior high school were counted as high school teachers.

C. A few postgraduate students took the test, but they were classified as seniors.

D. Step-parents were counted with parents.

The first significant data of this study that deserve consideration are those relating to scores made on the test by the six groups of participants. These data are shown in Tables I to VI. In each table figures are presented showing the number of laymen falling into each of several categories, and also showing the average score of each such group.

Tables I and II contain these data for the classroom teachers. The principal single conclusion to be reached after an

TABLE I
SCORES MADE BY RURAL TEACHERS

Categories	Number of Cases	Mean Scores
Geographical distribution		
Gibson County	119	30.0
Sullivan County	25	30.9
Vigo County	234	30.6
Three other counties	59	30.2
Not stated	2	29.0
Total	439	30.6
Sex		
Female	316	30.6
Male	111	32.2
Not stated	12	29.1
Total	439	30.6
Grade level		
Elementary school	275	30.2
High school	142	31.1
Not stated	22	30.9
Total	439	30.6
Length of experience		
1 or 2 years	69	29.3
3 to 5 years	88	30.3
6 to 10 years	129	30.7
11 or more years	136	31.4
Not stated	17	30.3
Total	439	30.6
Degrees held		
None	252	30.3
Bachelor	151	31.2
Master	9	31.3
Not stated	27	29.5
Total	439	30.6

analysis of these tables is that the averages are not greatly different among any of the larger groups of teachers. Regardless of

whether teachers are rural or urban, located in one community or another, female or male, elementary or high, experienced or inexperienced, well trained or poorly trained, their success on the test was about the same. What slight differences are observable from group to group are too small to have practical significance.

TABLE II
SCORES MADE BY CITY TEACHERS

Categories	Number of Cases	Mean Scores
Geographical distribution		
Brazil	63	31.6
Princeton	46	32.8
Terre Haute	201	31.1
West Terre Haute	24	30.3
31 other cities	61	31.8
Not stated	8	31.4
Total	403	31.4
Sex		
Female	319	31.2
Male	81	32.6
Not stated	3	26.6
Total	403	31.4
Grade level		
Elementary school	209	31.1
High School	188	31.8
Not stated	6	31.2
Total	403	31.4
Length of experience		
1 or 2 years	18	31.1
3 to 5 years	20	32.1
6 to 10 years	76	31.5
11 or more years	278	31.4
Not stated	11	30.7
Total	403	31.4
Degrees held		
None	160	31.0
Bachelor	177	31.6
Master	57	32.3
Not stated	9	29.1
Total	403	31.4

Tables III and IV contain similar data for students who are preparing to become teachers. As was the case with the teachers, the differences between the mean scores of the various groups of students have no practical significance; however, the differences between the mean scores made by the teachers and those made by the students may be large enough to have meaning.

TABLE III
SCORES MADE BY STUDENTS FROM RURAL COMMUNITIES

Categories	Number of Cases	Mean Scores
Geographical distribution		
Clay County	26	28.8
Parke County	22	29.2
Sullivan County	26	28.1
Vigo County	39	28.0
52 other counties	169	28.9
Not stated	1	20.0
Total	283	28.7
Sex		
Female	174	28.8
Male	109	28.5
Total	283	28.7
Grade level preparing for		
Elementary school	144	28.9
High school	133	28.5
Not stated	6	27.3
Total	283	28.7
Class standing		
Freshman	65	28.0
Sophomore	108	29.0
Junior	64	28.0
Senior	43	28.9
Not stated	3	28.7
Total	283	28.7

Data relative to test scores earned by those adult laymen who were not connected with schools or with teaching are shown in Tables V and VI. In these tables some significant differences are revealed. The differences between rural and urban, geographical locations, female and male, parents and non-parents, probably are only accidental. But the differences between different levels of educational attainment are too consistent to be so interpreted. It is quite likely that the differences in educational attainment reflect differences in native intelligence and ability to read also. The low scores of the less educated laymen may be due to lack of intelligence or to lack of ability to read the test items correctly. Evidence of this was presented on the cover page of many test papers. Adults wrote "white" in the space calling for sex, street numbers when only post office was asked for, and other such crudities.

The difference between the average scores of the adult laymen not connected with schools and those of teachers and students also are significant. Obvious factors may account for such differences. They are not surprising.

TABLE IV
SCORES MADE BY STUDENTS FROM CITIES

Categories	Number of Cases	Mean Scores
Geographical distribution		
Clinton	19	27.9
Muncie	19	28.5
Terre Haute	186	28.3
65 other cities	152	28.8
Not stated	6	28.5
Total	382	28.4
Sex		
Female	246	28.1
Male	134	29.1
Not stated	2	28.5
Total	382	28.4
Grade level preparing for		
Elementary school	94	28.1
High school	244	28.8
Not stated	44	26.9
Total	382	28.4
Class standing		
Freshman	88	27.8
Sophomore	100	27.6
Junior	96	29.3
Senior	95	29.1
Not stated	3	26.3
Total	382	28.4

The most important part of this report concerns the particular items of the test that were missed most frequently. It is from an analysis of these items that the values of this study enumerated in the opening paragraph can be realized.

As many as 1,776, or nearly ninety per cent, of the total number taking the test missed one of the items. As few as forty-five, or less than three per cent, missed one of the others. Varying intermediate numbers missed the remaining items. It would be both tedious and unnecessary to give complete data showing the numbers of laymen in each group who missed each item of the entire list of forty. The values mentioned at the beginning of this report call for only those items most frequently

missed. Complete data will be shown, therefore, for only the twenty-five items most frequently missed. Such detail includes all items missed by as many as three hundred, or fifteen per cent, of the total number of laymen whose test papers are included in this study. These data are presented in Table VII.

Before presenting the table, however, the complete list of items will be given. These items are not in the order in which they appeared in the test, but in the order in which they were missed by the 1,990 laymen who tried them. Furthermore, not all the items are in the same language as they were in the test. The only ones that are the same are the true true-false statements. The false true-false statements are reversed here so as to make them true. The multiple-choice items are worded here so that they resemble true true-false statements. In the list of forty

TABLE V
SCORES MADE BY OTHER ADULT RURAL LAYMEN

Categories	Number of Cases	Mean Scores
Geographical distribution		
Fountain County	63	26.2
Sullivan County	34	24.9
Vigo County	83	22.7
Three other counties	33	23.6
Total	213	24.3
Sex		
Female	120	24.6
Male	91	23.8
Not stated	2	20.0
Total	213	24.3
Education		
Less than elementary-school graduate	26	19.1
Elementary-school graduate	77	22.4
High-school graduate	88	26.4
College graduate	20	29.2
Not stated	2	15.0
Total	213	24.3
Parental status		
Parents	164	23.6
Non-parents	46	26.2
Not stated	3	28.3
Total	213	24.3

TABLE VI
SCORES MADE BY OTHER ADULT
CITY LAYMEN

Categories	Number of Cases	Mean Scores
Geographical distribution		
Terre Haute	239	21.9
West Terre Haute	31	22.7
Total	270	22.0
Sex		
Female	219	21.4
Male	49	24.7
Not stated	2	16.0
Total	270	22.0
Education		
Less than elementary school graduate	35	18.5
Elementary-school graduate	123	20.6
High-school graduate	75	23.9
College graduate	26	28.5
Not stated	11	19.6
Total	270	22.0
Parental status		
Parents	254	22.1
Non-parents	15	20.5
Not stated	1	18.0
Total	270	22.0

items that follows, the false true-false statements that have been reversed are indicated by minus signs (-), and the multiple choice items that have been rewritten are indicated by asterisks (*).

*1. The best legal way to finance the building of a schoolhouse is that of issuing short-time serial bonds.

2. The question of whether we can afford good public schools is not as important as that of the form of taxation to be used in getting the money.

*3. After a teacher has graduated from a teachers' college and taught successfully for a few years, he should be given a teaching license that is good for an indefinite period of time.

*4. The state board of education is composed of the governor, the lieutenant governor, the state superintendent, and six other persons appointed by the governor.

*5. The age of compulsory school attendance is 7 to 16.

*6. The state superintendent of public instruction gets his position by popular election.

*7. The highest source of authority in the administration of the public schools of Indiana is vested in the state legislature.

8. Increases in school costs over what they were twenty years ago are due primarily to increases in enrollment.

*9. Nominations of teachers for employment or dismissal in the best regulated schools are made by the superintendent.

10. The problem of providing an adequately educated teaching force for the schools is essentially a state and not a local problem.

-11. Many states give money to help local school costs.

*12. The highest authority in a local school system is the township trustee or city board of trustees.

*13. Teachers' certificates are issued only by the state board of education.

14. It is more economical to employ a clerk to do the clerical work in the office of the school superintendent or principal than to have these officials do such work themselves.

*15. The minimum legal annual salary of an elementary teacher is \$800.

*16. School superintendents are selected by election by the school trustees.

17. Where teachers' salaries are low there is a tendency toward a poorer quality of teachers.

-18. Not all the children of Indiana should follow the same courses of study.

*19. Teachers' contracts are with the school trustees.

*20. Elementary school textbooks are adopted by the state board of education.

-21. School report cards to parents should not be limited to reports of attendance and marks in school subjects.

-22. The larger the taxing unit for school purposes the better it is.

-23. No teachers have too much training.

24. It is well to give a teacher a half year leave of absence with pay for the purpose of further study once every ten years.

-25. The attendance officer has more duties than that of returning truants to school.

-26. Legal requirements in Indiana stipulate that every normal child be given an opportunity for an education.

27. America spends more money each year for candy and cosmetics than it does for education.

*28. The most desirable length of time for a teacher's tenure in a given position is as long as he renders good service.

29. An ideal health program in school includes health instruction, and prevention and correction of disorders.

30. In employing teachers we should fit the teacher to the job rather than fit the job to the teacher.

31. If a community is unable to meet the legitimate educational demands of the

state, the obligation rests on the state to give financial help to such community.

32. A teacher should be notified not later than the last day of a school term whether or not he will be employed in the same system for the following year.

33. Politics should have no place in the schools.

Table VII shows the number of laymen in each group who missed each of the more difficult twenty-five test items. The items are indicated in abridged form at the left of the table, and after the items are columns of figures representing the various groups of people tested. The columns

TABLE VII
TEST ITEMS MOST FREQUENTLY MISSED

Items	Number of Laymen in Each Group Who Missed						
	RT	CT	RS	CS	RL	CL	Total
1. Financing a school building	393	345	247	342	198	251	1776
2. Affording schools vs. form of taxation	349	319	210	289	137	199	1503
3. Indefinite certification of teachers	312	325	195	252	119	155	1358
4. Composition of state board	246	217	190	271	167	232	1323
5. Age of compulsory attendance	173	222	167	287	151	226	1226
6. Selection of state superintendent	178	127	232	327	131	223	1218
7. Highest source of authority	256	225	143	215	151	210	1200
8. Cause of increased costs	286	257	154	185	135	162	1179
9. Nominations of teachers	270	59	221	224	171	203	1148
10. State responsibility in training teachers	239	151	166	213	146	187	1102
11. States aiding local schools	262	225	123	170	128	173	1081
12. Highest authority in local system	195	110	134	156	136	160	891
13. State certification of teachers	55	42	124	162	133	217	733
14. Economy of clerical help	91	35	110	73	108	123	540
15. Minimum salary	15	58	36	122	101	199	531
16. Selection of local superintendent	33	31	97	127	92	143	523
17. Salaries and teaching merit	117	61	71	103	58	82	492
18. Uniform courses of study	78	98	51	63	72	122	484
19. Teachers' contracts	34	52	30	116	48	157	437
20. Adoption of textbooks	36	24	49	102	79	124	414
21. Report cards	45	39	40	61	87	135	407
22. Size of taxing unit	38	40	45	85	59	102	369
23. Amount of training of teachers	74	60	24	64	42	80	344
24. Sabbatical leaves	42	24	49	53	78	86	332
25. Duties of attendance officer	35	21	35	38	62	109	300

*34. The principal qualification to be considered in employing teachers is that of ability to teach.

35. Low annual salaries for teachers cannot be justified on the ground that teachers work only eight or nine months a year.

36. Good budgetary procedure leads to a better support of public schools.

37. The presence of a large number of over-age children in a schoolroom has a bad effect on the other pupils.

38. Health work in our schools is not an unnecessary fad.

39. Each pupil who has not been able to be promoted with his class should be carefully examined as to his physical health, mentality, habits, and home conditions.

40. It is just as necessary to have competent and well-trained teachers in the primary grades as in any other grades.

from left to right represent the rural teachers, city teachers, rural students, city students, rural adult laymen not connected with schools, city adult laymen not connected with schools, and total, respectively.

A cursory examination of the table shows that the various groups of laymen found the order of difficulty of the twenty-five test items to be approximately the same. A more exact measure of the degree of agreement is possible by means of coefficients of correlation. Spearman "Footrule" correlations of the rankings of all forty items by the various groups are shown in Table VIII. The letters in the table represent the same groups as in Table VII. The coefficients are reasonably high.

TABLE VIII
COEFFICIENTS OF CORRELATION BE-
TWEEN THE ORDER OF DIFFICUL-
TY OF THE FORTY TEST ITEMS
AS FOUND BY THE VARIOUS
GROUPS OF LAYMEN

	CT	RS	CS	RL	CL	Total
RT	.90	.90	.85	.82	.77	.91
CT		.83	.89	.73	.76	.90
RS			.95	.90	.84	.96
CS				.88	.92	.98
RL					.96	.90
CL						.92

SUMMARY AND CONCLUSIONS

1. After an analysis of some of the best literature on public school administration, forty of the most important topics in school administration which seemed essential for good citizenship or successful classroom teaching were selected and arranged in the form of an objective test which was administered to several hundred laymen.

2. The usable test papers were 439 from rural teachers, 403 from city teachers, 283 from rural students attending teachers' colleges, 382 from city students attending teachers' colleges, 213 from adult rural laymen not connected with public education, and 270 from such city laymen. The rural students were from communities quite well distributed over the state of Indiana, and the city students somewhat less well distributed over the entire state. All other groups were predominantly from western Indiana. However, the mean scores on the test by people from different geographical communities were so nearly equal as to suggest that a wider geographical distribution of persons tested would not have altered the results.

3. No significant differences in average scores were revealed between rural or urban groups or between males and females. Also, the grade level at which the teachers taught or the students were preparing to teach, the length of experience or amount of college training of the teachers, the class standing of the students, and the parental status of the other adult laymen made little difference.

4. Differences in extent of educational attainment made consistent difference in mean scores with both the rural and urban adult laymen who are not connected with schools or teaching. The higher the level of educational attainment the higher the average test scores. These differences probably reflect differences in intelligence and in ability to read also.

5. As might be expected, the teachers made better scores than students, and the students better than the other laymen.

6. The order of difficulty of the test items for one group of laymen was found to be about the same as for another.

7. The forty topics covered by the test can very logically be classified into seven groups as follows: those pertaining to school finance; training, certification, employment, salary, and tenure of teachers; state authorization and control; compulsory attendance and school privileges; local trustees and administrators; curriculum, textbooks, promotion, and pupil reports; and politics. The appearance of school finance topics in the order of number of times missed as shown in the list preceding Table VII is in positions 1, 2, 8, 11, 22, 27, 31, 36. Topics relating to teachers are in positions 3, 10, 13, 15, 17, 23, 24, 28, 30, 32, 34, 35, 40. Those on state control are numbers 4, 6, 7. Compulsory attendance topics are 5, 25, 26; local administration topics are 9, 12, 14, 16, 19; curriculum topics are 18, 20, 21, 29, 37, 38, 39; and the politics topic is 33.

8. Any school administrator should find in this list of items a cue for a part of his publicity program. Parent-teacher associations likewise might capitalize on these findings. High-school civics courses, which heretofore have stressed practically all forms of American government except that form which is closest to the children, school government, should also benefit. Finally, school supervisors and makers of teacher training curricula can easily obtain data on a few fundamental matters in which teachers and prospective teachers may be lacking.

